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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,682	10/29/2003	Xing Su	043395-0378252	9817

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EXAMINER	
HA, JULIE	

ART UNIT	PAPER NUMBER
1654	

MAIL DATE	DELIVERY MODE
08/25/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Advisory Action Before the Filing of an Appeal Brief	**Application No.** 10/697,682	**Applicant(s)** SU ET AL.	
	Examiner JULIE HA	**Art Unit** 1654	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 10 August 2009 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:
   a) ☐ The period for reply expires _____months from the mailing date of the final rejection.
   b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

   Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
   (b) ☐ They raise the issue of new matter (see NOTE below);
   (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
   The status of the claim(s) is (or will be) as follows:
   Claim(s) allowed: _____.
   Claim(s) objected to: _____.
   Claim(s) rejected: *1-8,10-16 and 32-35*.
   Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: Please see continuation of 11 below.
12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____
13. ☐ Other: _____.

/Cecilia Tsang/
Supervisory Patent Examiner, Art Unit 1654

Continuation of 11:

WIthdrawn Objection and Withdrawn Rejection:

Claim 34 objected for minor informality is hereby withdrawn in view of Applicant's amendment to claim 34.

Claims 2, 6, 15 and 34-35 rejected under 35 U.S.C. 112, second paragraph, is hereby withdrawn in view of Applicant's amendment and arguments to the claims.

Maintained Rejections:

Claims 1, 4-5, 7-8, 10-14, 16 and 35 remain rejected under 35 U.S.C. 102(b) as being anticipated by Chan EY (US Patent No. 6,210,896) as set forth in the previous office action.

Applicant argues that "the Examiner's position that passing the labeld proteins, polypeptide or peptides through one or more nanopores, an inner surface of the nanopores coated with a semiconductor material is a mental process which does not involve any active method steps, is not a proper statutory basis for rejecting a claim as a mental step in 23 USC 102. Instead, the appropriate statutory basis is 35 USC 101." Applicant further argues that "the Examiner has construed 'coated with' as a step in the method claim. This is not correct.…'coated with' means 'having a coating of'". Applicant further argues that "persons of ordinary skill in the art would recognize that metal layers 64 and 74 of Chan '896 are metallic coatings, not a semiconductor coating…A careful review of Chan '896 shows that Fig. 4 is missing…therefore, Chan '896 is also not enabling with respect to the portions relied upon by the Examiner in making the anticipation rejection."

Applicant's arguments have been fully considered but have not been found persuasive. The office action at page 11 clearly indicates that the active method steps are steps a) to d). The Examiner acknowledges that there was a typographical error. The step 2) should have been e), since the chronological order of claim 1 is a) to e). Step e) is a mental process, which does not involve any active method steps. Furthermore, in regards to the inner surface of the nanopores coated with a seminconductor material, this is not an active method step. This implies that the coating is alredy there (past tense), and therefore, a property of the nanopore. In regards to Applicant's argument that "coated with" means "having a coating", this still does not make this step an active method step. Having a coating implies that the coating is already there, still a property of the nanopore. Additionally, the reference explicitly teaches metal composition coating the nanopores. As indicated in the office action, the instant specification has been utilized to define what a "semiconductor material" is, and the instant specification discloses that "the sensor layers may comprise semiconductor material including, but not limited to, silicon, silicon dioxide, silicon nitride, fermanium, fallinium arsenie, and/or metal-based compositions such as metals or metal oxides (see pragraph [0078] of instant specification). Therefore, the Chan '896 as a whold anticipates all of the active method steps of the claimed inventions of instant claims. In regards to Chan '896 not enabling, an issued patent is assumed to be enabled.

Claims 1, 4-5, 7-8, 10-14, 16 and 35 remain rejected under 35 U.S.C. 102(e) and (a) as being anticipated by Chan EY (US Patent No. 6,355, 420) as set forth in the previous office action.

Applicant argues that "Chan '420 fails to teach 'passing the labeled proteins, polypeptides or peptides through one or more nanopores, an inner surface of the nanopores coated with a semiconductor material is not a mental process." Applicant argues that "the Examiner makes the incorrect assumption that the electrolessly deposited metal fibril in Chan '420 is a semiconductor".

Applicant's arguments have been fully considered but have not been found persuasive. As described above, step e) is a mental process, which does not involve any active method steps, not step 2). Furthermore, Chan '420 explicitly teaches that the "membrane can also be produced such that both faces of the membrane are coved with thin metal films to produce a nanodisk electrode ensemble…this assembly is useful for examining changes in current as polymers flow through changes in conductance can be measured" (col. 46, lines 15-20 and 24-26). The art clearly and explicitly teaches conductance being measured as the polymers pass through the nanopore. Therefore, Chan '420 as a whole anticipates all of the active method steps of the claimed inventions of instant claims.

Claims 1, 3-5, 7-8, 10-14, 16 and 35 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Chan EY (US Patent No. 6,210,896), as set forth in the previous office action.

Applicant argues that "as explained above, Chan '896 fails to teach 'passing the labeled proteins, polypeptides or peptides through one or morenanopores, an inner surface of the nanopores coated with a semiconductor material' as recited in independent claim 1."

Applicant's arguments have been fully considered but have not been found persuasive. As described above, Chan '896 teaches each and every active method steps of instant claim 1. Chan '896 does not teach obtaining one or more porteins, polypeptide or peptides from a biological smaple. However, it would have been obvious to one of ordinary skill in the art to try the method of obtaining the identity of the protein of any sample, including proteins from biological samples. Since Chan patent works on any polymeric compounds, such as DNA, RNA, and proteins that are labeled with luminscent labels, fluorescent labels, and so on.

Claims 1-8, 10-16 and 32-25 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Chan EY (US Patent No. 6,210,896) in view of Thompson et al (US Patent No. 5,324, 637), as set forth in the previous office action.

Applicant argues that "Chan '896 fails to teach 'passsing the labeled proteins, polypeptides or peptides through one or more nanopores, an inner surface of the nanopores coated with a semiconductor material, as recited in independent claim 1."

Applicant's arguments have been fully considered but have not been found persuasive. Chan '896 reference teaches each and every active method steps of instant claim 1, as described above. Thompson et al teach a method for coupling transcription and translation from DNA, wherein RNA is transcribed from DNA and RNA translates into protein, and radiolabeling amino acids that are obtained (such as S35 methionine or 3H leucine. Therefore, it would have been obvious to combine the teachings to obtain the portein identity, because both prior art teach the identification of proteins. Since both prior arts teach identification of proteins by fluorescent or radiolabeling of proteins, one would expect success with proteins translated from RNA.

Claims 2, 6, 15 and 32-34 remain rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for producing labele dnucleic acid from the template nucleic acid, does not reasonable provide enablement for producing one or more labeled proteins, polypeptides or peptides encoeed by the template nucleic acid of claim 1, as set forth in the previous office action.

Applicant argues that "paragraph [0036] of the specification explicitly teaches that "labeled proteins encoded by the nuceic acid template may be produced by in vitro translation or by linked transcription/translation."

Applicant's arugments have been fully considered but have not been found persuasive. As set forth in the previous office action, the instant specification does not provide guidance as how to produce labeled proteins from template nucleic acid. The art provide guidance as producing labeled nucleic acid from template nucleic acid, characterizing and sequencing polynucleotide, but no art provide guidance as how to produce labeled proteins, polypeptides or peptides from a template nucleic acid, since not all template nucleic acids would encode the same labeled proteins, polypeptides or peptides, Since it is unclear which template nucleic acid would preoduce the same labeled proteins, polypeptides or peptides, more guidance is necessary.

Conclusion:

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie Ha whose telephone number is 571-272-5982. The examiner can normally be reached on Mon-Fri, 5:30 AM to 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cecilia Tsang can be reached on 571-272-0562. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Julie Ha/
Examiner, Art Unit 1654